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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,957	10/16/2001	Brian James Misek	10010215-1	7262
57299	7590	03/20/2006	EXAMINER	
AVAGO TECHNOLOGIES, LTD. P.O. BOX 1920 DENVER, CO 80201-1920			LUU, THANH X	
			ART UNIT	PAPER NUMBER
			2878	
DATE MAILED: 03/20/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/981,957

Applicant(s)

MISEK, BRIAN JAMES

Examiner

Thanh X. Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,5-8,11,14-17 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,5-8,11,14-17 and 22-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to amendments and remarks filed March 8, 2006. Claims 3, 5-8, 11, 14-17 and 22-31 are currently pending.

Claim 31 has been withdrawn.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 3, 5, 11, 14 and 22-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Yonemoto et al. (U.S. Patent 6,166,769).

Regarding claims 3, 5, 11, 14 and 22-30, Yonemoto et al. disclose (see Fig. 4) a system comprising: an array of photocells (32) that are arranged in rows and columns, and a sequential readout circuit for sequentially reading out the value of the photocells one photocell at a time, wherein the readout circuit includes: a first sampling circuit (38, 38') that includes a first electrode (electrode of 38 near 37) for coupling to a first column and a second electrode (electrode of 38' near 39'); a first switch (39') that includes a first electrode coupled to the second electrode of the first sampling circuit, a second electrode, and a third electrode (gate) for receiving a first sample control signal; wherein the first switch selectively couples the first electrode of the first switch to the second

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electrode of the first switch when the first sample control signal is asserted; wherein the first sampling circuit samples a light signal (from 38) and a reset signal (from 38') from each photocell in the first column; a second sampling circuit and second switch (see elements in adjacent column, not labeled) as claimed; and an amplifier (43) that includes a negative input terminal coupled to the second electrode of the first and second switches; wherein the amplifier includes an output terminal for generating a signal that corresponds to the amount of light received by a particular photocell in the array. Yonemoto et al. also disclose (see Fig. 4) determining a difference (47) between the light signal and the reset signal, and an integration capacitor (44) as claimed. Yonemoto et al. further disclose (see Fig. 4) the sampling circuit includes a sampling capacitor (38 or 38').

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonemoto et al. in view of Simerly et al. (U.S. Patent 5,982,424).

Regarding claims 6, 7, 15 and 16, Yonemoto et al. disclose the claimed invention as set forth above. Yonemoto et al. do not specifically disclose a level shifting or gain manipulation circuit as claimed. Simerly et al. teach (see col. 7, lines 35-47) level shifting and gain manipulating in a similar system. Simerly et al. further recognize that

level shifting and gain manipulation accounts for variations in dynamic ranges among frames. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a configuration in the apparatus of Yonemoto et al. in view of Simerly et al. to improve detection as taught.

5. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonemoto et al. in view of Krymski (U.S. Patent 6,222,175).

Regarding claims 8 and 17, Yonemoto et al. disclose the claimed invention as set forth above. Yonemoto et al. do not specifically disclose a photocell circuit as claimed. Krymski teaches (see Fig. 4) a photocell circuit (50) as claimed. Krymski recognizes that such a configuration is conventional and well known in the art. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a configuration in the apparatus of Yonemoto et al. in view of Krymski to obtain active pixel readout and improve detection.

### ***Response to Arguments***

6. Applicant's arguments filed March 8, 2006 have been fully considered but they are not persuasive.

Applicant asserts that the prior art does not disclose a first sampling circuit that samples a light signal and a reset signal from each photocell in the first column because it is a strained interpretation to combine elements 38 and 38' to form the first sampling circuit. Examiner disagrees. Nothing in the claim language precludes such a reasonable interpretation of the combination of circuit elements 38 and 38' (and other surrounding circuit elements) to form the first sampling circuit. Applicant has used the

terms "first sampling circuit" which reasonably means that many different elements can be combined to form such a circuit. As understood, the elements 38 and 38' (and circuitry around the elements) in combination form the first sampling circuit as claimed. As set forth above, the combined circuitry of elements 38 and 38' has the same structure as the circuit as claimed. There is no structural difference between the invention and the prior art. Applicant's remarks and summary of how the prior art works are irrelevant since everything in the claim is disclosed in the prior art.

Thus, as set forth above, this rejection is proper.

### ***Conclusion***

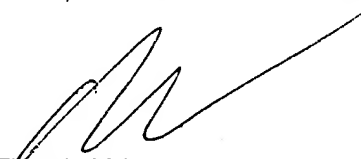
7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu  
Primary Examiner  
Art Unit 2878

03/2006